POSITIONS AND AREAS OF SUN SPOTS—Continued

Date	Eastern standard civil time	Heliographic			Area		Total area for each day
		Diff. long.	Longitude	Latitude	Spot	Group	
1929	h. m.	°	°	°			
Mar. 11 (Naval Observatory).	11 42	−58.0	23.2	−13.5	22		
		−50.0	31.2	−7.5		170	
		−37.5	43.7	+22.5		46	
		−26.0	55.2	+7.0	25		
		+12.5	93.7	−9.0		802	
		+45.0	126.2	−7.5		262	1,327
Mar. 12 (Naval Observatory).	11 55	−44.5	23.4	−13.5	12		
		−35.5	32.4	−7.0		201	
		−25.0	42.9	+23.5		77	
		−12.5	55.4	+7.0	9		
		+25.5	93.4	−9.0		802	
		+27.0	94.9	+17.5		6	
		+59.0	126.9	−7.5		247	1,354
Mar. 13 (Harvard)	13 9	−28.0	26.0	−14.0	17		
		−18.5	35.5	−7.0		159	
		+42.0	96.0	−8.0		1,043	
		+74.5	128.5	−6.0		310	1,529
Mar. 14 (Yerkes)	10 25	−14.5	27.8	−7.5		50	
		−2.8	39.5	−8.3		50	
		+52.3	94.6	−9.6		800	900
Mar. 15 (Mount Wilson)	11 20	−80.0	308.7	+8.0	355		
		+7.0	35.7	−8.0		60	
		+23.0	51.7	+7.0	3		
		+42.0	70.7	−14.0		28	
		+66.0	94.7	−9.0		984	1,430
Mar. 16 (Naval Observatory).	11 46	−70.5	304.8	+9.5		432	
		+7.5	22.8	−15.0	6		
		+21.0	36.3	−7.5		31	
		+37.5	52.8	+7.5	15		
		+55.5	70.8	−13.5		93	
		+80.5	95.8	−9.0		540	1,117
Mar. 17 (Naval Observatory).	11 39	−57.0	305.2	+9.5		417	
		+69.0	71.2	−14.0		93	510
Mar. 18 (Naval Observatory).	11 43	−43.0	305.9	+9.5		309	
		+80.0	68.9	−15.0	46		355
Mar. 19 (Naval Observatory).	12 41	−27.0	308.2	+9.5		293	293
Mar. 20 (Naval Observatory).	11 28	−13.5	309.2	+9.5		293	293
Mar. 21 (Naval Observatory).	11 45	+0.5	309.9	+9.0		247	247
Mar. 22 (Harvard)	10 50	+15.0	312.0	+8.0	394		394
Mar. 23 (Yerkes)	9 47	+26.6	310.7	+7.8		300	300
Mar. 24 (Naval Observatory).	11 12	−53.5	216.6	−12.5		123	
		+40.5	310.6	+9.0		170	293
Mar. 25 (Naval Observatory).	14 25	−38.0	217.2	−12.5		139	
		+56.5	311.7	+8.5	170		309
Mar. 26 (Naval Observatory).	11 5	−26.5	217.3	−12.5		170	
		−1.0	242.8	−5.5	6		
		+68.0	311.8	+8.5	185		361

POSITIONS AND AREAS OF SUN SPOTS—Continued

Date	Eastern standard civil time	Heliographic			Area		Total area for each day
		Diff. long.	Longitude	Latitude	Spot	Group	
1929—Continued	h. m.	°	°	°			
Mar. 27 (Naval Observatory).	11 32	−12.0	218.4	−12.5		170	
		+11.0	241.4	−5.0		37	
		+82.0	312.4	+8.5	170		377
Mar. 28 (Naval Observatory).	11 55	+2.0	219.0	−12.5		201	201
Mar. 29 (Naval Observatory).	11 45	+16.5	220.4	−12.5		185	185
Mar. 30 (Yerkes)	9 20	+23.6	215.7	+9.9		75	
		+26.7	218.8	+9.8		100	
		+28.9	221.0	−13.4		75	250
Mar. 31 (Harvard)	12 20	−79.5	97.5	−10.5		472	
		−54.5	122.5	−3.0		52	
		+42.0	219.0	+10.5		231	
		+45.0	222.0	−13.5		90	845
Mean daily area for March							776

PROVISIONAL SUN-SPOT RELATIVE NUMBERS FOR MARCH, 1929

[Data furnished through the courtesy of Prof. W. Brunner, University of Zurich, Switzerland]

March, 1929	Relative numbers	March, 1929	Relative numbers	March, 1929	Relative numbers
1	[4] 44	11	E [2 3] 92	21	[2] 11
2	47	12	94	22	
3	W [3] 59	13	77	23	E [3] ?
4		14	66	24	
5	53	15	W [1 4 3] 65	25	22
6	73	16	58	26	35
7	74	17	40	27	39
8	[5] 90	18	24	28	[1] 18
9	103	19	19	29	W [5] 20
10	[2] 91	20	15	30	40
				31	55

Mean, 27 days: 52.7.

[1] Passage of an average-sized group through the central meridian.
[2] Passage of a large group through the central meridian.
[3] New formation of a larger or average-sized center of activity; E, on the eastern part of the sun's disk; W, on the western part; M, in the central zone.
[4] Entrance of a larger group on the east limb.

AEROLOGICAL OBSERVATIONS

By L. T. SAMUELS

Beginning this month certain intermediate levels are omitted from Tables 1 and 2 and the wind resultants shown in Table 2 are based on pilot-balloon instead of kite observations. The number of stations shown in this table has been increased.

Table 1 shows a rather striking temperature relationship for the month in that the departures are all positive in the lower levels and negative in the upper levels, the latter increasing appreciably at the highest level, 4,000 meters. In view of this abnormally cold air aloft surmounting abnormally warm air it might be expected that conditions were exceptionally favorable for precipitation. However, with the negative relative humidity departures occurring coincidently with negative temperature departures there was no appreciable excess in the monthly precipitation except at Due West, where the total was 10.94 inches. At this station however, the negative temperature departures were smallest.

Vapor pressure departures were positive in the lowest levels and negative above.

Resultant winds for the month were light and variable at the surface and lower levels (see Table 2). At 1,000 meters the directions were mostly westerly and the velocities about 5 m. p. s. At 4,000 meters, the westerly component is pronounced and the velocities range mostly between 10 and 15 m. p. s.